

### **WHAT IS CLAIMED IS:**

1. A fuel and air mixing device comprising:

a tank adapted to receive fuel therein;

a compressor connected to a first port of a mixing device and a valve  
5 assembly having a pipe connected to a second port of the mixing device, a siphon  
connected to the valve assembly and extending in the tank, an outlet connected to the  
valve assembly, and

a control unit connected to the valve assembly and the compressor.

2. The device as claimed in claim 1, wherein a heating mechanism is  
10 connected between the compressor and the mixing device.

3. The device as claimed in claim 2, wherein the control unit includes an  
examining unit which includes a pressure checking member for checking pressure in  
the tank, a temperature checking member connected to the heating mechanism, and a  
level checking member for checking level in the tank.

15 4. The device as claimed in claim 1, wherein the control unit includes an  
operation panel.

5. The device as claimed in claim 1, wherein the control unit includes an  
operation panel for displaying information of pressure, fuel level, temperature of the  
fuel and the compressor.

20 6. A method for mixing fuel and air, comprising:

step 1: providing pressurized air into a tank in which fuel is received;

step 2: siphoning the fuel from the tank and the fuel passing through a mixing device and entering the tank in a form of small particles which are mixed the pressurized air provided by a compressor in the tank;

5      step 3: the mixture of the fuel and the air being sent to an outlet of a valve assembly due to pressure difference between the pressure in the tank and outside of the tank.